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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,289	10/11/2000	J. Scott Carr	60307	1154

23735 7590 07/28/2004

DIGIMARC CORPORATION
19801 SW 72ND AVENUE
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TUALATIN, OR 97062

EXAMINER

BAYAT, BRADLEY B

ART UNIT	PAPER NUMBER
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3621

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/689,289

Applicant(s)

CARR ET AL.

Examiner

Bradley Bayat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Status of Claims

Claims 1-21 are again presented for examination on the merits.

Response to Arguments

Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection. Although applicant filed an appeal brief on April 8, 2004, the examiner has not considered applicant's appeal brief due to the following new grounds of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-21 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The basis of this rejection is set forth in a two-prong test of:

- (1) whether the invention is within the technological arts; and*
- (2) whether the invention produces a useful, concrete, and tangible result.*

Mere intended or nominal use of a component, albeit within the technological arts, does not confer statutory subject matter to an otherwise abstract idea if the component does not apply, involve, use, or advance the underlying process. Furthermore, a mere implication of employing a machine or article of manufacture to perform some or all of the recited steps does not confer statutory subject matter to an otherwise abstract idea unless there is positive recitation in the claim as a whole to breathe life and meaning into the preamble.

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In the present case, the applicant is merely claiming an envelope (claim 1) and a substrate (claim 14) with some data encoded. Applicant's claims are not tied to a technological art, environment, or machine and therefore are non-statutory. *MPEP 2106 IV 2(b)*. Looking at the claim as a whole, nothing in the body of the claims recite any structure or functionality to suggest that applicant's claimed invention is within the required statutory subject matter and in the technological arts. *In re Musgrave*, 167 USPQ 280 (CCPA 1970) and *In re Johnston*, 183 USPQ 172 (CCPA 1974).

Additionally, for a claimed invention to be statutory, the claimed invention must produce a useful, concrete, and tangible result. Although the recited process may produce a useful, concrete, and tangible result, since the claimed invention, as a whole, is not within the technological arts as explained above, claims 1 and 14 are deemed to be directed to non-statutory subject matter and therefore claims 1-21 are rejected under 35 U.S.C. 101.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21 and 21 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 21 and 21 recite the limitation "the envelope" in line 2 of each claim. There is insufficient antecedent basis for this limitation in the claim. Applicant does not refer to an envelope anywhere in claims 14-20.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leon, U.S. Patent 6,701,304 B2 in view of Bhaskaran et al. (hereinafter Bhaskaran), U.S. Patent 6,064,764 and in further view of Yeung et al. (hereinafter Yeung), Digital Watermarks: Shedding Light on the Invisible.

As per claim 1, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Bhaskaran, however, teaches the use of a fragile digital watermark for detecting tampering with the original image (columns 1-2). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize an additional variation of a watermark technique as taught by Bhaskaran to detect any kind of tampering or fraudulent production of an original mark or label as disclosed in Leon, to improve detection of unauthorized copies and reliably test image or postage authentication.

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As per claim 2, Leon further discloses the envelope of claim 1 in which the watermark is formed with ink (column 2, lines 20-46).

As per claim 3, Leon further discloses the envelope of claim 1 in which the watermark is formed by texturing of the original envelope medium (column 2, lines 20-46).

As per claim 4, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that additional watermarks can be used on media for other functions, i.e., robust watermarks that can withstands at least certain photocopying operations yet for example identify the author of a work. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize additional watermarks besides a fragile watermark for to perform different functions as in origination information that a fragile watermark cannot perform.

As per claim 5, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and

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apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that location at which an image is captured can be embedded into the image using an invisible watermarking technique to embed global positioning system (GPS) information, wherein queries of image archives can be searched (page 39). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to utilize such watermarking technique to encode data that would directly link to the corresponding site without the need to query a database or archive.

As per claim 6, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that digital watermarks can encode data representing a device or user that produced the document (pages 33, 39). Therefore it would have been obvious for one of ordinary skill at the time of the invention to utilize a secondary watermark indicating the device or originator of the indicia or envelope for further prevention of fraud to facilitate accurate authentication. [*Also see Bhaskaran for further support in columns 7-8.*]

As per claim 7, Leon discloses an original envelope having encoded thereon a digital watermark representing plural bits of digital data (column 2, lines 10-18; column 2, lines 20-46; columns 9-10). Although Leon discloses the use of watermarks in a franking method and apparatus, he does not explicitly disclose the use of a specific type of watermark known as a fragile digital watermark. Yeung, however, teaches the use of a fragile digital watermark for detection of tampering or whether a document or image is the original one (see entire article). Yeung further teaches that digital watermarks can encode data indicating to compliant equipment an image should not be reproduced or copied. (pages 34). Therefore it would have been obvious for one of ordinary skill at the time of the invention to utilize a secondary watermark indicating to the compliant device not to copy or reproduce an image as a further measure for prevention of fraud.

As per claim 8, Leon discloses the envelope of claim 4 in which the second digital watermark is printed on the envelope at the same time as a franking mark (columns 6-7).

As per claim 9, Leon discloses the envelope of claim 8 in which the second digital watermark is printed on the envelope by the same printing assembly used to print said franking mark (columns 8-9).

As per claim 10, Leon discloses the envelope of claim 4 in which at least one of said digital watermarks occupies a region that is also occupied by a franking mark printed on said envelope (figures 4 and 5 and associated text).

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As per claim 11, Leon discloses the envelope of claim 4 in which the second watermark is formed on a second side of the envelope, opposite a side on which the first watermark is formed (column 6).

As per claim 12, Leon discloses the envelope of claim 1 in which said digital watermark is printed on the envelope at the same time as a franking mark (figures 4, 5 and associated text).

As per claim 13, Leon discloses the envelope of claim 1 in which said digital watermark is printed on the envelope by the same printing assembly used to print said franking mark (column 6, lines 27-64; column 7, line 50-column 8, line 50).

Claims 14-21 are directed to a substrate of the above claims and are rejected as above.

Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.

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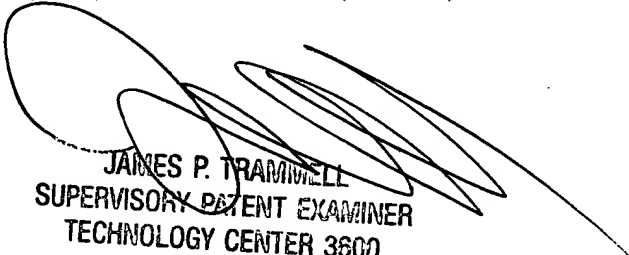
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bradley Bayat whose telephone number is 703-305-8548. The examiner can normally be reached on Tuesday-Friday during normal business hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Trammell can be reached on 703-305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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